FARM STOCK

STRAW FOR FEEDING CATTLE

Indiana Experiment Station Conducted Experiment to Test Value—Various Rations Given.

(Prepared by the United States Department of Agriculture.)

In an experiment conducted at the Indiana experiment station to test the feeding value of oat straw it was found that a ration of corn silage, corn, and cottonseed meal was just as valuable

Superior Beef Type.

for economy and extent of gains when used with oat straw as when fed with clover hay. As such a ration is extensively used in various parts of the United States its practical value can readily be seen. Straw and stover are especially valuable for the wintering of breeding herds of beef cattle, and should form a large part of their feed.

Rations suitable for different classes of beef cattle are as follows:

Rations for Breeding Cows.

Ration 1:
Straw, 10 pounds.
Silage, 20 pounds.
Cottonseed or linseed meal, 1 pound.

Ration 2:
Straw, 20 pounds.
Cottonseed or oil cake, 2 pounds.

Ration 3:
Straw, 10 pounds.
Shock corn, 20 pounds.
Cottonseed meal or linseed meal, 1 pound.

Ration 4:
Stover, 35 pounds.
Cottonseed or linseed oil meal, 1 pound.

Rations for Feeding 1,000-Pound Fattening Steers.

Ration 1:
Straw, 5 pounds.
Silage, 18 pounds.
Corn, 12 pounds.

Ration 2:
Straw, 8 pounds.
Legume hay, 3 pounds.
Cottonseed cake or linseed cake, 5 pounds.

Ration 3:
Stover, 10 pounds.
Silage, 15 pounds.
Corn, 12 pounds.

Ration 4:
Straw, 5 pounds.
Stover, 15 pounds.
Corn, 6 pounds.
Cottonseed meal, 3 pounds.

In these rations various other feeds may be substituted. In the rations given for wintering breeding cows definite quantities of straw and stover are given. In actual feeding such figures should be somewhat disregarded and the cattle given as much roughage as they will consume.

Yearlings may be fed three-fourths the ration for breeding cows and may be expected to come through the winter in fair to good condition.

For fattening animals straw should always be within reach so that the animal may eat at will. They will usually eat from three to five pounds daily.

ATTENTION TO COLT'S FEET

Examine Them Carefully Whether on Pasture or in Barn—Keep Toes Properly Trimmed.

Look frequently at the feet of the colts, whether on the pasture or in the barn, and remedy things before they get bad. Keep the toes trimmed down to the proper length and do not allow the heels to run over and get round. If the feet are kept rounded on the toe and of the proper length, the tendency to split and crack will be reduced to a minimum. In the stable the feet should be frequently cleaned and trimmed and the frog kept in its proper shape.

SOUND ROUGHAGE FOR SHEEP

If Carefully Fed and Pastured Alfalfa Is Excellent for All Classes of Live Stock.

Alfalfa, if carefully fed and pastured, is one of the best roughages for sheep. The rapid increase in the production of alfalfa in the United States during recent years has resulted in a more careful study of its possibilities as a food for all classes of live stock. Formerly it was used primarily as a cattle feed, but now it is used as a feed for horses, swine and sheep.

DAIRY

NATION NEEDS DAIRY CALVES

Dairyman Will Be Doing Patriotic Duty by Developing Heifers—Hints on Care Needed.

(Prepared by the United States Department of Agriculture.)

No dairy calf that gives promise of a profitable milk producer should be sent to the market to be made into meat. Although meat is in demand, these calves will serve the nation better if allowed to grow and produce milk and more calves. The dairyman, too, will be doing at patriotic duty by developing the heifers, and in addition he will be building up a more profitable herd if he uses good judgment in caring for his young stock. Careful attention during the first two weeks often means the difference between a sickly, undersized, stunted animal and a large, well-developed one, when it enters the herd as a milking cow.

Immediately after birth the navel of the calf should be washed with an antiseptic solution and tied with a silk thread in order to prevent infection. For the first feed the calf should have the first milk from the cow after calving, and should have its mother's milk for a week thereafter. The sooner the weaning takes place the better, but ordinarily it should not be postponed later than the fourth day. The sooner the calf is weaned the more easily it is taught to drink. When first fed from the pail eight to ten pounds, or four or five quarts, of milk a day, fresh and warm from the cow, and divided into two feeds, are sufficient. The feeding times should be as nearly regular as possible, and at first it is advisable to feed more than twice a day. The amount fed should be constant, and to insure this, scales or measuring cups should be used, as variation tends to get the digestive organs out of order. At all times the utmost care should be taken to prevent any digestive disorder, as all such trouble hinders the thrift and development of the calf. Calf scours is the most common indication of indigestion.

The following named precautions, to a great extent, tend to prevent scours:

Feed regularly.

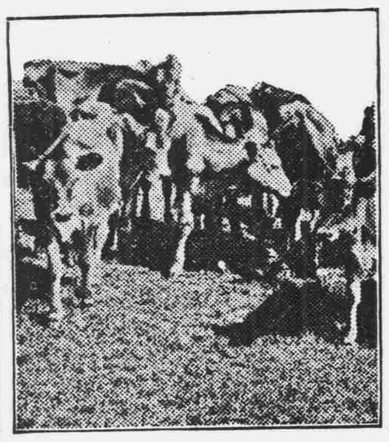
Be sure that the milk is always sweet and warm.

In feeding use only clean pails.

Feed the calf a little less than it wants.

Should the calf become sick, reduce the amount of milk one-half, until the animal has recovered.

The amount of milk fed can be gradually increased until at the end of the second week the calf receives from 15 to 16 pounds, or three-fourths to two gallons of milk a day. This time the gradual substitution of skim milk for whole milk may commence. Hay and grain should be placed before the calf at this period, and it will be found to



Foundation of Dairy Herd.

nibble at them a little. At the end of the third week the substitution of the skim milk will be complete. By slow changes milk can be increased thereafter until 20 pounds or 2½ gallons a day are fed; this amount will be found sufficient when fed with the grain and hay. If skim milk is plentiful more may be fed, but the added amount will give proportionately better results.

Cornmeal, bran, and linseed oil meal, mixed in the proportions of three, two, and one, make an excellent grain mixture. This grain when fed with plenty of fine clover or alfalfa hay makes an ideal supplement to skim milk in balancing the ration. Calves should be allowed all the grain that they will eat until they consume three pounds a day; from this point the feeder should use his judgment as to whether an increase is justified.

The calf, from the time it is two weeks of age, should always have clean, sunny quarters, abundance of exercise, and access to plenty of clean, pure water.

The general practice is to feed calves skim milk for from two to six months. In the latter case, with fall calves the time of final weaning from milk comes in the spring, when pastures are ready. under this system the calves usually make excellent growth during the entire period without any break in gains.

Feed for Maintenance.

It should be remembered that a good dairy cow requires approximately 50 per cent of her ration to keep alive and maintain body weight, while a poor cow requires an even larger portion for maintenance.

Ventilation in Stables.

Ventilation in our dairy stables is seldom overdone.

OUR FARM PAGE

Articles of interest for Farmers, Live Stock Men, Dairymen, Gardeners

COST OF PRODUCING PORK REDUCED BY USE OF PASTURE AND FORAGE CROPS

YOUNG PIGS ON RAPE PASTURE.

(Prepared by the United States Department of Agriculture.)

Although corn constitutes a large proportion of the feed given to hogs, the cost of producing pork may be materially reduced by the use of pasture and forage crops, supplemented by grains. Rape, soy beans, cowpeas, peanuts, alfalfa, clover, vetch, rye, oats, and Canada field peas are all valuable forage crops for swine of any age. In general, the grain ration which is suited to be fed with the legumes is corn and barley, etc.; with the nonlegume plants, a small amount of nitrogenous feed, such as tankage or oil meal, is advisable.

As a general rule, if rapid gains are desired, a full ration of grain is fed along with the forage, but if economy in feeding is to be practiced smaller proportions of grain will be better. In some sections of the country, where pastures are luxuriant, mature hogs are maintained in apparently satisfactory condition on pasture alone. This practice should be followed, however, in case of young, growing pigs, because they will become thin in flesh and stunted if compelled to live on pasture alone.

In a feeding test extending over three summers at the Missouri experiment station, forage crops demonstrated their value. Ten pounds of gain were accredited to each bushel of corn consumed before gains were accredited to forage crops. Grain was fed at the rate of 2 or 3 per cent of the weight of the hogs. For each acre pastured alfalfa produced 596 pounds of pork; corn 395; rape, oats, and clover 394; sorghum 370; blue grass 295; rye grain 244; cowpeas 224, and soy beans 183.

Grain for Hogs.

Hog raisers differ widely regarding the quantity of grain that should be fed to hogs while on pasture. Some feeders give them all they will consume; others about 2 to 3 per cent of the live weight of the hog. Still others will allow pigs to run on pasture and feed them a 1 per cent grain ration. There is no fixed rule governing the supplemental grain ration which should be fed in combination with forage. The amount of grain fed depends upon the kind of pasture used, the price of grain, and the market. When a farmer has more hogs than his pasture will accommodate, the pasture will last longer if a full grain ration is fed.

When grain is high, it is rather expensive to feed a supplemental grain ration. At such times there is a great temptation to place the hogs upon pasture alone. This practice will hardly ever pay, for it generally takes more grain and more time to finish off the hogs than if they had been fed a liberal ration while on pasture.

The amount of grain used also will depend upon the length of time the feeder has in which to fit the hogs for market. Hogs that are marketed from ten to twelve months old are usually maintained on pasture alone during the grazing season. If any grain is given at all it is very light. In this way the greater percentage of growth is made from the cheaply grown forage. Where rapid finishing is desired, the liberal use of grain is important.

Importance of Pasture.

Permanent pastures also play an important part in a forage-crop succession. Such pastures as alfalfa, the clovers, blue grass, Bermuda, and a number of others, have their greatest use during the summer, when few temporary crops, such as corn, soy beans, cowpeas, and velvet beans, are available. Permanent pastures do not furnish grazing as early in the spring as do the cereals, but they grow better during late spring and summer and afford an abundance of forage at a season when few other pasture crops are ready to graze. A permanent pasture then takes the place of a reserve forage crop, being called upon to furnish grazing at any time of the year when other pastures fail or are exhausted.

Dry-lot rations are not usually satisfactory from a financial standpoint. Corn ordinarily forms the basis of the ration, with protein supplied from one of the concentrates, such as mill feeds, oil meal, soy beans, alfalfa, or like feeds. Where milk is available it is frequently fed to hogs to advantage, but under present conditions much of the skim milk which has been given to hogs should now be manufactured into cheese.

When fed in the dry lot, a common custom is to give the pigs all the feed they will clean up in a reasonably short time. For a pig weighing 15 to 50 pounds live weight, a full ration for one day is about six pounds of grain for each 100 pounds of weight; for larger pigs the ration will continue to grow smaller in proportion to weight until the 300 to 350-pound pig will only consume a daily ration equal to about 2.4 per cent of his weight.

Ensilage for Cows.

The feeding of 40 to 60 pounds of ensilage to a cow per day will not injure her. The usual quantity for a Jersey cow is about 30 pounds and for a Holstein from 40 to 60 pounds. Along with the ensilage feed some other roughage, such as hay or straw, and also some grain.

HAVE A WEED-FREE FARM

(Prepared by the United States Department of Agriculture.)

Far more important than to kill weeds is to avoid having weeds to kill. In other words, the farmer should aim to prevent rather than cure the evil. A farm can be made almost free of weeds by strictly observing the following principles: (1) Prevent weeds from going to seed on the farm; (2) prevent weed seeds being brought to the farm; and (3) in the case of perennial weeds, prevent them from making top growth and thus finally starve out the underground parts.

Keeping Quality of Fruit.

A variety of fruit may differ in its keeping quality when grown in different parts of the country. It may vary when grown in the same locality under different cultural conditions.

PLOW MIGHTIER THAN SWORD

Food Is Most Important Consideration for War—Lack of It Weakens Fighting Nations.

The plow is mightier than the sword, because the man who is to use the sword must have food to make him use it mightily. Food is the all-important consideration for war. There is more weakness among the fighting nations now for lack of food than for men and munitions.

Selecting Crops.

But let us try to exercise good judgment in the selection of crops to be grown. We should stick close to the staple crops such as tomatoes, cabbage, sweet corn, beans, peas, onions, celery and other standard vegetables for which there is nearly always a strong demand.

Cultivate for Profits.

Fruit trees, and all kinds of small fruit, should be regularly cultivated and fertilized like other crops grown to yield profits.

THE KITCHEN CABINET

Some neglect the gift that is in them because they are so busy in looking for the gift that is in somebody else.—C. H. Spurgeon.

POTATO DISHES.

We are asked to increase the use of potatoes because of a good supply at present in many sections. This will save grain and as potatoes are rich in starch they may help in the saving of bread.

Panned Potatoes—Cut cold boiled potatoes in quarter inch slices, dredge lightly with flour and fry in a little hot fat. When light brown, heap on the side of the pan, let stand a few minutes, then turn out as an omelet. Sprinkle with salt and serve at once.

Potato pancakes are a great delicacy and may be used occasionally for a supper dish although rather hearty for the young people.

Mashed potatoes with a little codfish may be made into cakes and browned on both sides.

Scalloped Potatoes.—Wash and pare the potatoes, cut in slices and let them stand a half hour in cold water. Drain, then put a layer of the potatoes in a buttered baking dish, sprinkle with salt and pepper, dredge with flour and dot with bits of oleo or any butter substitute, adding a little grated cheese or a few sliced hard-cooked eggs to make a more nourishing dish. Repeat until the dish is full, then cover with hot milk and bake in a moderate oven one and a fourth hours.

Potato Salad.—Mix cold boiled potato, a little chopped onion, a cucumber and a little celery or some chopped green pepper; one or all of these will make a good salad. Garnish with hard-cooked egg and make a boiled dressing, using the vinegar left from any sweet pickled cucumbers. The spice and flavor make a dressing especially good. For variety, cold beets, chopped parsley, cooked carrots or fresh carrot finely ground, or in fact any vegetable, may be added to the potato without hurting its palatability.

Leftover peas and beans with a slice of tomato for a garnish may be used in combination with potato. A hot potato salad is especially well liked. Here one may use any fat, olive or corn oil and heat the spiced vinegar to pour over the potatoes.

As a nation we eat and waste 80 per cent more protein than we require to maintain health. We also eat and waste 240 per cent more fat than is necessary.

GOOD EATS TO SAVE MEATS.

The variety of beans which are now grown, each having a flavor of its own, making a variety, so that "to not know beans" these days is a well deserved opprobrium. The soy bean is rich in fat and much richer in protein than other beans. They have been milk and butter to the Oriental people and we are just beginning to know their value. There are also the lima, kidney and navy beans, as well as a dozen varieties of various colors and names that we may grow in our gardens this summer.

Black Soy Bean Soup.—Take a cupful of cooked black soy beans, four cupfuls of water, one-half an onion, a stalk of celery, a teaspoonful of salt, a half-teaspoonful of pepper, one-eighth of a teaspoonful of mustard and a tablespoonful of fat. Cook the onion in the fat; add the beans, water and seasonings. Simmer one hour. Serve hot. Soy beans are often hard to cook tender. They should be well soaked and cooked in the same water, as much of the nutriment of any vegetable is wasted by throwing away the water in which it was cooked.

Lima Beans en Casserole.—Soak one cupful of lima beans, cook until soft, then drain. Brown one onion, minced in a quarter of a pound of salt pork cut in cubes. Add the beans and two-thirds of a cupful of the bean liquor, place in a greased baking dish and bake until brown.

Bean Roast.—Take a cupful of stewed beans and a cupful of peanuts, put them through a meat chopper, add a half-cupful of bread crumbs, a teaspoonful of salt, a dash of pepper and a half-cupful of milk; shape into a loaf and bake 30 minutes. Serve hot with tomato sauce.

Peanut Butter Soup.—Take a cupful of peanut butter, three cupfuls of milk, two teaspoonfuls of salt, a dash of pepper, a tablespoonful of flour mixed with the peanut butter; cook all together and whip well with an egg beater. Celery water or minced onion may be added for flavor.

Nellie Maxwell

"Mind" and "Body."

An English writer, Prof. L. T. Hobhouse, remarks that the "mind" of a nation is a real agency, and he suggests there is an analogy in the human body which is the result of vital processes going on in a myriad of independent cells. The body is not another cell. It is something more than all the cells that compose it.

POULTRY

BREEDING TURKEYS ON FARM

Surprisingly Small Number of Fowls on Farms—More Could and Ought to Be Raised.

(Prepared by the United States Department of Agriculture.)

Raise more turkeys on the farm. It can be done with little additional outlay, and many more turkeys could and should be raised.

The small number of turkeys per farm in the United States is surprising. According to the census of 1910, which is the latest census that has been taken, only 13.7 per cent of the total number of farms reported any turkeys at all and on these farms reporting turkeys, an average of but

Profitable Type for Any Farm.

slightly over four breeding turkeys was found per farm. There are some farms which by the nature of the crops grown on them or because of unfavorable surroundings are not adapted to turkey raising, but most farms are adapted to turkey raising and could easily handle a breeding flock of from 10 to 15 hen turkeys and a tom, raising from 75 to 150 turkeys each year at a good profit.

Good prices were paid to the turkey raiser during the past marketing season. On December 15, 1917, the average price per pound live weight paid to the farmer was 30.5 cents in New York state, 23.7 cents in Illinois, 25 cents in Georgia, 19.3 cents in Texas, and 27.1 cents in California. The average price throughout the United States was 23 cents.

BEST POULTRY HOUSE FLOOR

Each Has Its Advantages and Disadvantages and All Should Be Carefully Considered.

(Prepared by the United States Department of Agriculture.)

In making the floor of the poultry house several things must be taken into consideration. Where the soil on which the house is constructed is light and well drained, earth floors are satisfactory and economical. Where the soil is heavy and drainage is not good, as is usually the case when it contains much clay, floors made of wood or cement are generally preferred. Each kind of floor has its advantages and disadvantages, and it is only after the consideration of all types should a poultry keeper make his selection.

A floor of earth needs to be renewed at least once a year. If the droppings that fall upon the floor are carefully removed at frequent, regular intervals, much of the earth is removed with them. If the regular cleaning of the floor is superficial, the earth of the floor to a depth of several inches becomes so mixed with droppings that its condition is very insanitary.

When the poultry keeper has a garden, the manure obtained by removing the earth floor of the poultry house will compensate for the labor of renewing the floor, and the new earth required can be taken from a convenient spot on his own land. When the poultry keeper must pay some one else to take away the old earth and bring in new, the cost will in a few years exceed the cost of a cement floor.

The principal fault of a cement floor is that it is likely to be cold and damp. These conditions may be corrected by covering the floor to a depth of an inch or two with dry earth or sand, using over this scratching litter of straw or shavings. Floors so treated require as much routine work to keep them in good order as earth floors, but the supply of clean earth required is much less and the work of annual renovation is eliminated.

Floors of wood are not now much used in poultry houses except when the space under the floor is high enough to be occupied by poultry. A wooden floor close to the ground soon rots, while any space under a floor not high enough to be used for poultry makes a harbor for rats and other vermin.

The wooden floor of a poultry house should have a light coating of dry earth, sand, chaff or similar material.

Roughage for Cow.

A cow should have all the roughage she can clean up, and the grain ration should be regulated by the amount of milk produced.

Grain for Dairy Cow.

A cow should be fed one pound of grain to each three pounds of rich milk produced, and one pound of grain to four pounds less rich milk.

Foundation of Ration.

The roughage should form the foundation of the dairy ration.